

AMENDMENTS TO THE CLAIMS

1. (Canceled)
2. (Previously presented) The composition of Claim 33, wherein the hydrophilic component is at least one of a hydrophilic group, a hydrophilic polymer, or a hydrophilic therapeutic, diagnostic, or prophylactic agent.
3. (Currently amended) The composition of Claim 34, wherein the therapeutic, diagnostic, or prophylactic agent is at least one of a protein, peptide, nucleotide ~~molecule~~, saccharide, polysaccharide, ~~[[small]]~~ organic molecule, or combination thereof.
4. (Currently amended) The composition of ~~Claim 2~~ Claim 33, wherein the hydrophobic ~~polymer component~~ is at least one of a synthetic vinyl-type hydrophobic polymer, a non-vinyl-type hydrophobic polymer, ~~[[or]]~~ naturally derived polymer, a membrane disruptive peptide, or a phospholipid bilayer disrupting agent.
5. (Canceled)
6. (Previously presented) The composition of Claim 2, wherein the hydrophilic group is at least one of a hydroxyacid, amine, thiol, carboxyl group, amino acid, or small molecule comprising one of these groups.
7. (Canceled)
8. (Currently amended) The composition of Claim 33, wherein the pH-sensitive linkage is at least one of an acetal, orthoester, cis-aconityl group, carboxylic acid, hydrazone, phosphamide, ester, Schiff base, vinyl ether, dithioacetal, tert butyl ester, carbamate, urethane, anhydride, polysaccharide, amide, thiourea, urea, thioester, sulfonamide, ~~phosphoroamidate~~ phosphoramidate, or amine N-oxide.

9. (Previously presented) The composition of Claim 34, wherein the therapeutic, diagnostic, or prophylactic agent is coupled to either the hydrophilic or the hydrophobic component by a degradable or disruptable linkage.
10. (Previously presented) The composition of Claim 9, wherein the linkage is degradable upon exposure to a change in pH.
- 11-12. (Canceled)
13. (Currently amended) The composition of Claim 33, wherein the ~~composition~~ conjugate further comprises a ligand, wherein the ligand specifically binds to a target molecule.
14. (Previously presented) The composition of Claim 34, wherein the therapeutic, diagnostic, or prophylactic agent is complexed to a component of the conjugate.
15. (Previously presented) The composition of Claim 33, wherein the pH sensitive linkage is hydrolyzed within about 30 to 60 minutes at a pH between 5.0 and 5.5.
16. (Previously presented) The composition of Claim 33 further comprising a pharmaceutically acceptable carrier for delivery of the conjugate to a cell or organelle.
17. (Previously presented) The composition of Claim 16, wherein the carrier is at least one of a carrier for systemic, local, or topical delivery of the conjugate.
18. (Previously presented) The composition of Claim 33 further comprising an agent enhancing membrane penetration.
19. (Previously presented) The composition of Claim 34, wherein the therapeutic, diagnostic, or prophylactic agent is at least one of an antisense nucleotide, ribozyme, ribozyme guide sequence, triplex forming oligonucleotide, or gene.
20. (Withdrawn) A method of making a composition for disruption of a membrane comprising forming a conjugate comprising

a membrane disruptive component comprising a polymer which is hydrophobic under the conditions where the membrane is to be disrupted, and

a hydrophilic component selected from the group consisting of a hydrophilic agent to be delivered, hydrophilic groups linkable to the hydrophobic polymer in an amount effective to make the conjugate hydrophilic, and hydrophilic polymer linkable to the hydrophobic polymer effective to make the conjugate hydrophilic,

wherein the hydrophilic component is coupled to the membrane disruptive component via a linkage which is is cleaved as a function of pH.

21. (Withdrawn) The method of claim 20 wherein the hydrophilic component is selected from the group consisting of hydrophilic groups or a hydrophilic polymer, further comprising linking to the conjugate a therapeutic, diagnostic or prophylactic agent to be delivered to a cell or cell organelle.

22. (Withdrawn) The method of claim 20 wherein the hydrophilic groups are coupled directly to the hydrophobic polymer.

23. (Withdrawn) The method of claim 20 wherein the hydrophilic component is linked to the membrane disruptive component by a linkage selected from the group consisting of acetals, orthoesters, cis-aconityl groups, carboxylic acid hydrazones, phosphamides, esters, Schiff bases, vinyl ethers, dithioacetals, tert butyl esters, and carbamates, urethanes, anhydrides, polysaccharides, amides, esters, ethers, thioureas, ureas, thioesters, sulfenamides, phosphoroamidates, and amine N-oxides.

24. (Withdrawn) The method of claim 21 wherein the agent to be delivered is coupled to either the hydrophilic or membrane disruptive component by a degradable or disruptable linkage.

25. (Withdrawn) The method of claim 20 wherein the conjugate further comprises a ligand specifically binding to a target molecule.

26. (Withdrawn) The method of claim 21 wherein the agent to be delivered is complexed to a polymeric component of the conjugate.

27. (Withdrawn) A method for disrupting a cell or organelle membrane comprising delivering to the cell or organelle a conjugate as defined by any of claims 1-19.

28. (Withdrawn) The method of claim 27 wherein the cell is a cell in a patient.

29. (Withdrawn) The method of claim 27 wherein the cell is an endosome in a cell.

30. (Withdrawn) The method of claim 27 wherein the cell is a bacterial cell.

31. (Withdrawn) The method of claim 27 wherein the conjugate is used to deliver a therapeutic, prophylactic or diagnostic agent.

32. (Withdrawn) The method of claim 27 wherein the conjugate is used to make a cell, cell organelle, or microorganism permeable to an analyte, cell or organelle component, drug, or infective agent which is to be analyzed.

33. (Previously presented) A composition for enhancing transport through a cellular membrane, comprising a hydrophilic conjugate having a hydrophobic component linked to a hydrophilic component by a pH-sensitive linkage, wherein the pH-sensitive linkage is stable at a pH between 6.8 and 8 and hydrolyzed at a pH less than 6.5 to release the hydrophobic component, and wherein the hydrophobic component is membrane-disruptive and allows enhanced transport through a cellular membrane only when released from the hydrophilic conjugate.

34. (Previously presented) The composition of Claim 33 further comprising a therapeutic, diagnostic, or prophylactic agent.

35. (Previously presented) The composition of Claim 33, wherein the hydrophobic component comprises a synthetic polymer.

36. (Previously presented) The composition of Claim 33, wherein the hydrophilic component comprises a polyalkylene oxide.

37. (Canceled)